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Evaluating the clinical utility of the Parkinson's KinetiGraph(PKG)

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Objective: To evaluate the utility of the Parkinson's Kinetigraph (PKG™) in the remote management of Parkinson's disease (PD).

Background: There is a movement in Parkinson's care from a clinic-based model (1) to P4 medicine, meaning medicine that is predictive, preventive, personalised and participatory (2). The development of wearable technology provides an opportunity to monitor patients remotely, and deliver targeted care. The PKG™ is a wrist-worn device that objectively measures Parkinson's symptoms.

Aim: To evaluate the utility of the PKG™ in managing PD patients remotely, and the perception of service users

Method: PKG™ data were collated in real time. Patient acceptability data were collated via a patient questionnaire (n=61).

Results: Between July 2015 and January 2018, 216 PKGs were performed. A variety of symptoms were identified, including different types of 'OFF' times (wearing off (25%), delayed on (6%) no drug response (8%)) and non-motor complications (fragmented sleep (33%) and daytime somnolence (21%)), with subsequent treatment recommendations being made. Patient acceptability of the PKG™ was high, 81% of patients being satisfied not having to travel for clinic appointments.

Conclusions: The PKG™ facilitated remote treatment recommendations. Remote management was acceptable to patients. Future evaluations will evaluate patient outcome.

References:

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